

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	10
Flange (in)	2½
Lip (in)	0.625
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	3.05
Cross Sectional Area: A (in²)	0.896
Moment of Inertia: Ix (in⁴)	12.681
Section Modulus: Sx (in³)	2.536
Radius of Gyration: Rx (in)	3.762
Moment of Inertia: Iy (in⁴)	0.653
Radius of Gyration: Ry (in)	0.854

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in⁴)	11.825	10.477
Section Modulus: Sxe (in³)	2.253	1.822
Local Buckling Allowable Moment: Mal (in-k)	44.53	54.55
Distortional Buckling Allowable Moment: Mad (in-k)	36.94	47.66
Allowable strong axis shear away from punch: Vag (lb)	1660	1660
Allowable strong axis shear at punch: Va net (lb)	1660	1660

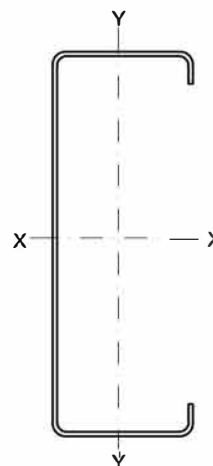
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in⁴)	0.957
Torsional Warping Constant: Cw (in⁶)	12.922
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.505
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.141

PRODUCT ID

1000 J 250-54 (10x2½x16ga)

CODES & STANDARDS

- ASTM A 1003, A 653, & C 955
- AISI S100-16



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data